

A
T R E A T I S E
ON THE
PUTRID CONSTITUTION of 1777
And the PRECEDING YEARS,
AND THE
PESTILENTIAL ONE of 1778:
Of the Obstinate Disorders that appeared in the Former,
AND THE
Malignant and Pestilential FEVERS
THAT AROSE IN THE LATTER,
Their Causes, and the best Method of preventing them;
THE
Due Administration of MEDICINE,
ESPECIALLY IN THE FORMER,
And the general Method of their CURE.
ALSO OF
The CAUSES of DISEASE in general;
With some peculiar Remarks on some common Errors
and dangerous Mistakes in the Use of The BARK
and other Medicines.

By JOHN BARKER. K

BIRMINGHAM;
PRINTED BY PEARSON AND ROLLASON;
AND SOLD BY
R. BALDWIN, PATER-NOSTER-ROW, LONDON.
M. DCC. LXXIX.



P R E F A C E.

THIS Author having already, under the influence and direction of the sacred writings, traced *THE TRUTH* in Divinity so high, placed it in so conspicuous a point of view, and shewn it in so clear a light, as he hopes has satisfied, rather otherwise silenced all Opponents worth his notice, after wishing that happy may be the consequence to them if such be indeed their case, he now descends lower, and proceeds according to his promise, though somewhat sooner than was intended, to point out *THE TRUTH* as it is in Physic, for the further benefit of his fellow-creatures.

And as the due investigation of this, and the proper remarks to be

made, are a subject of too much importance to bear compliment, each person of late concerned in trifling without knowledge in so momentous an affair, or resisting such proper enquiry, must be willing to take to himself patiently that share of reproof he is entitled to. He has written with as much decency as he could, since there is no temporizing in such weighty matters. Perhaps there may be some who will be disposed to hearken and attend to what concerns the health and welfare of their bodies, whereby they are at present more sensibly affected though many in this degenerate age, are too much corrupted by the vain pride, false notions and pretended knowledge, or too deeply engaged in the trifling pursuits of this world, to pay due regard to what is of infinitely higher consequence to them.

A TREATISE, &c.

AS the remarkable Fevers of last year are already become the subject of medical enquiry, and this Author cannot at present publish so elaborate a Treatise as that he has promised upon **THE TRUTH** in Physic, before he thus publishes any thing completely systematic, by way of Preparative for so great a work, and because the times require it, he will herein give his opinion on these matters. And he hopes Medical Gentlemen in general, so far from being offended at being dictated to by a Person in inferior station, and at his assuming to himself the authority of a Teacher in Physic as well as Divinity, seeing he does not take upon him this great office falsely and without knowledge, will on the contrary, laying down all pride, prejudice and useless parade, with humility and obedience embrace

THE TRUTH they pretend to search after where they find it. For, if they will thus shew their better sense, and be persuaded indeed to do this, he does assure them such conduct will infallibly tend to the great advancement of the Art, raise their own honour and reputation, procure to themselves ease and satisfaction in Practice, and be to the great advantage of their fellow-creatures.

In order to elucidate his subject, it will be necessary for him to lay down some of the great principles of Physic. But, before he does this, he will first take notice of the various methods of obtaining knowledge therein. The first in order and most simple of these is Observation. In this way the sagacious *Hippocrates*, by the appointment and under the peculiar qualification of Heaven, set out and proceeded farther in advancing medical knowledge, than any who have succeeded him, who trod in the same steps; and thereby acquired unto himself a Name in Physic which will not be cut off.---But observation alone is not sufficient to the obtaining a competent knowledge

ledge in this Art. To it is to be added Reason, properly so called, and the finding out the remote Causes of Disease, according to the instruction of the great *Bacon* who has laid it down for a law that *vere scire est per Causas scire*. Nay, if men are ambitious to walk in the sublime paths of Knowledge, they are not to stop even here: but, observing the appointments of the wise Governor of the world, take the matter in a prophetic view, and prognosticate the Diseases that will rise, when and where they will rage, as well as be acquainted, in a great measure, with the proper mode of treatment, and the salutary or mischievous effects of certain Medicines in them.

Now, so far from doing this, except the great *Boerhaave*, few if any have even attempted to join Reason to Observation with any tolerable success. And even his Principles are not perfect, nor will stand the test. And yet the not doing this fully, and in the extent thereof, whatever defect or fault has been the cause of it, is attended with the most pernicious consequences. For, by this

means, men are infallibly led aside into the bye paths of futile theory and false speculation, or commence Infidels in Physic: either amuse themselves with idle dreams and airy notions, or vainly endeavour to settle it upon the narrow basis of an Empyrical Foundation.

This Author has elsewhere long ago observed (a) that (b) *Hereditary and Acquired Scurvy* (c) or *Impurity of the Blood*, that is matter unformed and heterogeneous, (d)

(a) In his Treatise on Inoculation published in 1769.

(b) Hippocrates, though an heathen, had a notion of hereditary disease, and the impurity and defect derived from impure and imperfect bodies to their posterity, which he has expressed when treating *de morbo sacro* in words to this effect; *Initium autem ducit veluti alii morbi secundum cognationem. Si enim ex pituitoso pituitosus, &c. quid vetat ut cujus parentes hoc morbo detineantur, eo quoque et posterorum aliquis corripiatur? Cum nampe genitura ex omnibus corporis partibus procedat, a sanis sana et a morboſis morboſa.* Which is in fact the plain account of the matter. And yet, says a Physician of this age, There are no such things as hereditary disorders.

(c) *Eugalenus*, by observation obtained the best and most extensive notion of the effects of Scurvy and its cure of any writer this Author knows, but he seems not to have had any proper idea of its nature, and was no way able to define it.

(d) It is to be observed here, that this morbid matter is first described under the general title of *Heterogeneous*, and afterwards according to the nature it gradually takes on it, and the order of its progress and effects; the disease it produces
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--light, attractive and unfit for motion and ventilation---corruptible---or, by being retained long under the action of the vessels, become tenacious and accumulated---acid---inseparable--disposed to stagnate--tending to its dissolution, yet withal sometimes irresolvable, though in a putrifying state, (a) whether resident, as in general, upon the Coagulum, in the form of size, mixed in an impure, most viscid and yellow Serum, and even in some measure, sometimes possibly inherent even in the more dense, perfect and moveable parts of the red Blood itself, *when joined to Hereditary and Acquired Weakness*, * and its attendants Relaxation---Oppression---Distention--Obstruction---Inflammation--Irritation--Abrasion---Erosion--Decay and loss of fine temper and elasticity and De-

in the fluids, and is consequently the occasion of in the solids likewise: *et vice versa*, the effects of diseased solids upon the fluids.

(a) This is its state in that worst of all chronical disorders, a Cancer, and in the ulcers and impostumes in that most terrible of all fevers, the plague, and the diseases akin to it. *Vide Hippocratem de morborum natura et præcipue Ulcerum et abscessuum in statu pestilenti.* Lib. 3. de Morb. Vulg.

* This is always, in some degree, both general and particular.

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struction of the Solids, the deadly fruits of intemperance and want or excess of exercise, and to the dire effects of those irregular and unreined passions that not only pervert the œconomy of the body but disturb the functions of the soul likewise, *they are to the former what Sin Original and committed are to the latter, and will not fail, sooner or later, to destroy it.* And, had proper use been made of this imparted knowledge, this writer had not been now to begin, as it were again, to teach the first principles of disease. By these the laws of motion and secretion are obstructed, disturbed and confounded, and the equilibrium of the body destroyed. By this matter all the humours secreted from the blood are rendered impure, tenacious, acrid, even the very animal spirits themselves. From it putrid vapours arise, and corrupt exhalations in it rest, Pestilential Miasmata arise and take their seat, and excite such dire disturbance till they are discharged with the peccant humour they have adopted: and which, were it not so corrupted, attenuated, thrown out, or dissolved and discharged by the extraordinary efforts and increased

increased action of fevers in general, more especially of some pestilential ones, and particularly the small-pox, must of its own nature partially stagnate and corrupt, or wholly, put an end, suddenly or by degrees, to all motion, and prove fatal.

Let the above definition of Disease be imprinted then on the minds of Practitioners in Physic to all generations. For these are the only Principles, if we withal take into consideration the effects that Air, * Climate, Season, (those great regulators of the mode and movers under Providence of the efforts of all diseases) situation, food, poisons, and a few other things have, that will agree with the Phænomena † in physic: with the various, complex, intricate and apparently abstruse appearances observable in diseases. And this heterogeneous matter of its own nature become putrid or pestilential by

* Not only the effects of Air in general, but those of the several parts of the day were to be observed in the fevers of the late very relaxed tribe; for their remissions for many years past have been generally in the day when warmer, and and their stronger efforts when the body was more braced up by the cold of the night.

† No system can be true that will not.

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long retention and the effects of bad air, hot weather, and close situation upon it, or tainted and infected with malignant or pestilential particles, is the only Sedative, * or rather, if judgment may be taken from the ill effects of blisters and the quick and weak pulse, debilitating yet at the same time, irritating cause, which, together with a seeming impression made by the very hand of providence, as may be the case where that dreadful symptom dejection of spirits is felt, by oppressing the powers of the body, obstructing, irritating and inflaming the vessels, tainting and rendering impure the animal spirits, under a Constitution of the Air productive of putrid and pestilential diseases, and their constant attendant, a relaxed state of the solids, produce that languor with irritation, inaction, remission, and other appearances observable in the fevers of the present genus. If then the knowledge of these points lies involved thus in the

* Even an author so old as Galen had this true notion of the effects of malignant inseparable matter upon the solids and powers of the body, as given by Foesius in his note upon the remarkable words ἀνεσΐαι or, according to two most antient copies, ἀνεσΐαι πολλάς in Hippocrates de Morb. Vulg. in statu pestilenti.

depths of pure Philosophy, nay in those of Divinity itself; if, in the search into these matters, men are not only to consider themselves as made up of solids and fluids, but as composed of soul and body intimately united, and all these too under a state of Imperfection Original, in order to attain any idea of Physic tolerably competent; in vain do some search for *First Principles* under the partial notion of imperfection of the solids only or chiefly; and that too perhaps thought to be merely casual and accidental.

Thus you see *Faith* is as necessary a matter in Physic as Divinity, to obtain great knowledge in it: that they are nearly allied and intimately united to each other; and, to express ideas in the imperfect manner of mortals, *Parts* of the same TRUTH.

Such knowledge is to be attained by diligent and accurate Observation when improved by Reason. And there is no good solution of the matter to be given, but the misapplication of the human powers, why it might not have been obtained

tained sooner. Since it is by no means the will of that wise and merciful power, the author and director of the human nature, that it should have remained so long in ignorance of the true Principles of Physic, and that this noble Art should be now in these latter days, as it were, in a state of childhood, without its own inveterate pride and want of faith, prejudice and obstinate disobedience to the instruction of **THE TRUTH**. For these matters, though they are indeed seated in the sublime parts of knowledge, as first principles, are most simple and plain; and offer themselves to the observation and investigation of every rational being, nay obtrude themselves upon the eyes of every beholder.

Thus much was necessary to be premised before the more peculiar consideration of the subject, since, without due attention paid to these essential principles of the Art, all attempts to instruct farther would be vain and fruitless. But to come more immediately to it, which is now most attentively to be considered, according to the knowledge given, and the
rules

rules prescribed. And first of Observation.

Whoever has well observed the various kinds of fevers and their crises, and the different nature and appearance of morbid matter thrown out in a crude state by the bowels, attenuated and invisibly discharged by perspiration, or visibly observable in the urine under many forms, as separable easily, with difficulty, or, by its pallid look and clearness, not at all from the body, with the various other methods in diseases of different kinds nature uses to discharge it, * their cure and usual returns, of such are disposed to do so, after years are elapsed, can never doubt of the existence of the predisposing, retained tenacious matter described. And whoever has carefully, attentively, and accurately, for many years taken notice, as this Author has done, of the gradual change of the precedent Inflammatory Constitution into a Putrid One, and how it proceeded by degrees and arrived at the present height, even to that of one which

* Vide, Hippocratem de Morbis vulgaribus et coacas prænotiones.

is pestilential, can as little doubt of the effects of the former in the late, or of the latter in the present fevers. Inflammations indeed arise and ever will do under a Putrid or Pestilential Constitution as well as one Inflammatory, and disposed to produce those disorders usually and more properly so called. But have Practitioners of late seen the remarkable relief received from copious bleeding and without languor that was formerly? Have they known a man capable of losing an hundred ounces of blood in eight hours in a most violent Pleurisy with inflammation of the lungs? eighteen ounces at once the following day, and the next the same quantity? and, after the loss of such an enormous quantity of most tenacious, fizy, inflamed blood, have a bleeding at the nose by the peculiar efforts of nature? and all this done and happen without the least sign of languor, but the most evident Relief? Nay all this blood lost after another practitioner had taken as much from the patient as he durst venture to do? This is so far from being the case now, that, though in some peculiar local inflammations some persons have been known to bear

bear repeated bleedings cautiously used, it is likewise well known, that most flag after a first bleeding, and that in the present fevers it is sometimes even fatal to draw any blood at all.

That all this most remarkable difference arises from the nature of the present Fevers, both Observation and Reason alike teach; and from the putrid or pestilential constitution that stamps their Genus.

It became necessary to be thus explicit on this matter, because of the many disputes which have at times arisen among Practitioners about the nature of the late and present disorders. Now the Putrid Constitution took place in this part of the world many years before 1760; appeared at first, by the nature of the fevers then, to be duly and as it were equally mixed with the precedent Inflammatory Constitutions, till by degrees the latter entirely gave place to it, and was as it were entirely swallowed up by it. Since which time the Inflammatory Constitution has never appeared; but the Putrid one has reigned, has not only characterized the

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nature of all those general and local oppressions of the body and its parts, and efforts of the constitution called fevers and inflammations, but has even descended into and shewn itself in those efforts which sometimes appear in chronical disorders themselves; for while there is life there must be some efforts even in these, and, though it has seemed to loose ground at times and in some seasons of the year, has gained strength in its progress.

But to take the matter in a still more sublime light, and direct mens steps through the higher walks of knowledge, as well as apply this knowledge more peculiarly to the subject of this Treatise.

Whoever believes in the omnipresence of an all-powerful, wise, and benevolent Being, can never doubt a moment of his government of the world, nor think he sits an idle spectator of human affairs. If it pleases him to bless and prolong the lives of mankind, he can do it by rendering pure the mere Air they breathe. This was undoubtedly a second cause among others, of the longevity of the Anti-diluvians.

ti-diluvians. If he be determined to afflict (and that anger is gone out and the hand of Providence stretched out over this land for its chastisement, is verily and indeed but too certain and clear in the eyes of all discerning men) he can never want instruments. If he breaks the staff of the bread in any Country, (that is the power and purity of its nutritious quality, as well as in regard of the quantity produced) famine ensues, food becomes unwholesome, does not afford proper nourishment, but disposed to corruption. If he command predominant vapours to infest the air, so that the sun is darkened * and hardly shews his face for many days, as has been much the case of late years, in it noxious vapours will rest, by it the nerves be unstrung, the blood be not well made, nor the secretions duly performed. If withal, he command cold raw winds to blow in general through a whole season, so as to check the heat of the summer, and to make it at times more like winter, as

* *Vide Hippocratem de autumno obscuro in statu pestilenti et Æstate serena et callidâ subsequente lib. 3. de Morb. Vulg. Homer,* book 1, line 47 to 55 and the sacred writings.

was remarkably the case in 1777, † by these means gross humours will be retained and deadly diseases nursed up, according to that of Hippocrates concerning Autumn. The due consideration of which circumstance joined with the observation of the peculiar diseases which arose and abounded in this season, and the beginning of the next, the remarkable fatality among old people who are full of tenacious humours, and the extraordinary difficulty of relieving in many chronic disorders without the use of external Drains, which were a kind of Specific in these complaints, convinced this author of such *Retention.* || And, when he ob-

† A North East was the general or ruling wind of that season, as it's very opposite, a warm, close, South West or southern was of the next, and is likely to be of this. Vide Hippocratem de anno austrino pestilenti lib. 3. de Morb. Vulg. applicable in some degree, though somewhat more moist and wet, to last year and this, making proper allowance for difference of climate.

|| This was preparatory to the dreadful fatality of the succeeding year. It may be here worth remarking that external Scorbutic Disorders were at this time uncommonly numerous: and that, by opening an issue, in an almost confirmed Ascites in a boy, after taking medicine of various kinds for a long space of time, without the least success, he was perfectly cured by this single remedy; as were many other strong tendencies to various other chronical distempers, by thus draining off matter otherwise *inseparable.*

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served the remarkably warm season of 1778 to follow this as remarkably cold one, he was confirmed in an opinion he had conceived, that these things were an extraordinary appointment of Providence, to answer his wise purposes; that when the tenacious humours so retained became rarefied, corrupted, and put in motion to be discharged, diseases would fall heavy, especially in such confined places as large towns; and that, if the bark was given, by reason of the inseparable nature of the matter of the disease, and the quantity retained under the relaxed state of the solids, many of them would prove fatal; and the event has unhappily, but too fully justified his Prediction.

Such knowledge is to be attained by, and thus it is to those who faithfully seek **THE TRUTH** in simplicity with the most ardent desire of the mind. Nor let any one be offended with this remark, seeing it is chiefly made to stir up the minds of men to the attainment of knowledge truly worthy of that name.

The fevers of this season, in the beginning of summer, rose so high, and continued during the hot months, in persons of impure habits, whose blood is not well ventilated, and the latter was so highly rarefied, that the morbid corrupted humours in it in this state, made an inroad into, and were driven with the red blood itself, with violence, into the vessels of the skin. In milder cases this usually happened on the third day, as in some other pestilential fevers of the eruptive kind. When part of the morbid matter inherent in the blood, after having had and shewn its effects internally in great heat and restlessness, sickness and vomiting, soreness of throat, and other symptoms gradually increasing and become so noxious as to be retained no longer wholly within, was determined thither with it, that is, as far out of the body as it could be, by the efforts of nature, being at present no farther in a separable state. Part of the morbid matter, this Writer says, with some of the red blood was thrown outwardly to relieve nature; great disease in the rest of the blood,

blood, juices, animal spirits, vessels and internal membranes still remaining within.

Thus arose in these days that remarkable and even dreadful disease called the Scarlet Fever and *Sore Throat*, taken notice of and described by some Physical Writers, and appeared in a most malignant and even pestilential form : declared by the sore throat and universal equal intensely red appearance and smoothness of the skin in general without eruptions; these things shewing the intimate union and mixture of the morbid humours with the blood, as is the case in the plague itself. In fact, pestilential is its general nature, and the above-mentioned, under divine direction, its general causes, and were probably, nay perhaps still are sometimes, the cause of the rise of other Pestilential Fevers as well as this; notwithstanding they with this are communicated by infection. Nay, this must be the case, and this men are called upon to believe, unless it can be supposed their infectious particles came into being otherwise, which is very improbable and irrational, or it is believed their peculiar

miasmata were miraculously created originally for that purpose.

It is well known that the Plague usually visits warm climates, and rages in countries subject to it, as this fever did, chiefly during the hot season of the year.

* It is likewise as well known that some

* Smyrna, according to Doctor Chandler's account, in his travels in Asia Minor, is a place remarkable for the annual appearance of the plague, by reason, as it should appear, not only of climate but also peculiar situation, being surrounded by hills and open to no flux of air but from the sea. Notwithstanding however these peculiar circumstances related, its beginning with the spring and ending at the autumn, those of almost immediate death in some, the appearance of a fiery bladder upon the application of a poultice to a tumour, and the horrid infection attending those who survive suppuration, he weakly imagines, that the plague may be truly defined to be a disease arising from certain animalcules, probably invisible, which burrow and form their nidus in the human body. For the honour of human nature and its knowledge this Writer is sorry and ashamed to mention it. But what may not be expected from persons unread in Physic, when those who pretend to knowledge therein, when such a physician as Plenciz is guilty with others of an egregious mistake of the same nature. This is a ready, free, and bold way indeed of coming or pretending to come at knowledge, but unfortunately it is arguing against the Phenomena, and therefore cannot possibly be true, according to the rule settled in page 5. Certain Practitioners in Physic have been so infected with this error, that they have conceived most disorders to arise from worms. When they do exist they are no original complaint, but dependant on the abundance of the same heterogeneous matter this Author has described and so much insists on, secreted into the intestines and there corrupting, persons

persons are not liable at all times to be infected by either this or the small-pox : but that persons of purer bodies who are temperate, and it has been observed those also of well regulated minds, taking due care, frequently escape. All these things considered together, contain a pretty direct proof of the truth of this Writer's no-

which affords them a nidus to breed and rest in, and feed upon, otherwise they probably could not arise nor be retained in the body.

There is another egregious error of a different kind Practitioners are infected with, namely, that of calling almost every disorder a *bilious* fever or a bilious complaint. The term in general is as bad as that of *nervous*, when applied to diseases not understood. This Author doubts not the existence of complaints of either kind. But, if the bile be viscid, and acrid it derives such nature from impure blood, and its chief effects, except in the jaundice, will be observed in the liver, stomach, and intestines : and these are chiefly concurrent, at least in the fevers of this island, with viscidness and acrimony in the other humours, and therefore in general symptomatic. Whereas the grand matter in them is the separability or not of such tenacious, impure humours in general from the blood, from a simple *ephemera* or fever solved in one day, even to their inseparable nature in the plague itself. And as to chronic disorders, though in that great one the Diabetes, obstructions are found in the liver, which induced the late Doctor Mead to consider the want of the secretion of the bile as its cause, he was totally mistaken and took the effect for it. Doctor Randolph, in his treatise on Bristol Waters has evidently shewn this, agreeable to this writer's notions ; and that it consists in a general impure and most highly scorbutic acrimony, which is also at the same time the cause of such confirmed obstructions in the liver as well as other parts.

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tions about the mode of the rise of pestilential disorders: all the kinds originally and many still appearing to be only the effects of bad close air, for the most part without much wind, † in the hot season in different climates, upon predisposing causes in the blood. For it is incontestible that there are such predisposing causes for the pestilential matter at least to lodge in, seeing some persons escape infection, and others in whom they do not abound or who have great strength, as wonderfully recover, || with all the disadvantages of air, climate, season and situation against them.

In this is read the truth of and to such persons is applicable that remarkable and sublime expression, a thousand shall die beside thee and ten thousand on thy right hand, yet it shall not come nigh thee; seeing such persons, not to exclude the belief of a peculiar Providence, are thus wonderfully disposed to be preserved, in a great measure, by the divine direction of natural causes solely.

† Vide Hippocratem de morb. vulg. in statu pestilenti concerning this circumstance and the having much dry weather and long fits of wet by turns.

|| Doctor Chandler's travels in Asia Minor, page 282.

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But there is no such peculiar natural preservation to persons of impure and weak bodies; for, in a constitution of the air disposed to produce this fever, it will arise without infection. The best preventive methods are strict temperance and even abstinence, and a serene yet lively temper of mind, such as arising from virtue is therefore in general a stranger to fear; pure wholesome food and the refraining from things heating and irritating, at least in any undue degree; the daily use of some portion of pure spring water in strong habits, when the body is in proper temper for its reception; regular moderate exercise and air in the temperate parts of the day, and the avoiding the extreams of heat and the damp cold of the evening, with the alterative gentle daily or occasional use of Rhubarb, Rhubarb and Cream of Tartar, or Tartar of Vitriol. In the spring calomel with antimonials and rheubarb might perhaps be used in an alterative manner, or some doses exhibited with success, with the use of spring herbs, vegetable salt, medical purging waters, the opening of issues,
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and afterwards the use of the cold bath. To prevent receiving occasional infection in those who visit the sick, nothing is in general better with the above, than washing the hands, face, mouth and throat with spring water, hawking up the phlegm, and spitting out the saliva for some time, blowing the nose, and discharging the mucus lodged there, and walking or riding in the air afterwards; and, if there appear the least signs of the disorder, taking a vomit as early as possible. These methods will in some measure prevent the miasmata lodging in and corrupting the grosser humours secreted and out of the course of circulation, and therefore most disposed to such effects; and, by discharging some of them, lessen the oppression of the body, which is a matter of the highest consequence. But there is no conclusion to be drawn from any good effects of vomits, (for they not only discharge the infected gross matter already mentioned, but put the whole machine of the body in motion and promote all the secretions) that therefore the chief lodgment or effects of an infection so subtle and active as to bring on its correspondent disease so early

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as upon the third day are at first only made upon the throat, nose and adjacent parts, and further communicated from thence. Electrical experiments long ago might have taught that, as rarefied air and light pervade the body instantaneously, therefore they must be absorbed by all the vessels, and pervade all the nerves in every respiration. Without this men could not live many minutes, motion could not for many reasons go on,* and the blood, though ever so pure would corrupt in the vessels. As the air is thus absolutely necessary to ventilate the blood every minute, it most infallibly carries such subtle infectious particles into the vessels along with it, and there they must rest if it be viscid and impure. But the knowledge of these points relating to the animal œconomy are at present in a very defective state indeed, and that culpably, as well as many more of the highest necessity to be known and understood; and medical Gentlemen and Philosophers seem determined that they shall there remain, because they will not believe any thing that they cannot see with their

* This is the reason of such sudden death by strangulation.
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eyes, nor which does not regard matter under its most gross idea.

It has been mentioned above that the scarlet efflorescence in this remarkable fever generally made its appearance upon the third day. For in dangerous cases the ebullition of the humours was so great, that it sometimes came out upon the first or second, and was attended with delirium thus early, according to the account of it written by the ingenious *Doctor Withering*, who had great opportunities of observing it in the neighbouring town of *Birmingham*, where it in a manner raged; and who has accurately described this disorder in all its stages and under all its forms, and indeed given us as it were a picture of it, with the method of cure he found useful.

The rapid progress of the disease in these cases undoubtedly arose from the quantity, sudden and high rarefaction of the corrupt matter in the blood, its being thrown, with the blood in which it was inherent, into, pervading and distending the smaller vessels, and the morbid effluvia
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of it the nerves themselves. And the remarkable equable shining redness he describes as exhibiting an appearance like the eye of a Ferret as certainly pointed out that a general suffusion had taken place, as well as an intense inflammation in the smaller vessels, in such cases, and declared the inherent nature of the still tenacious though so highly rarefied morbid matter in the more perfect parts of the blood and humours, and its intimate mixture with them.

The writer just mentioned very accurately takes notice, that he observed this fever to affect children more than adults, and women more than men, that is, in other words, persons abounding with an unsanguified lentor, and whose bodies were lax, with this qualification, that the robust were in most danger, the retained morbid matter in whom has a more peculiarly tenacious property through the repeated action of their vessels in a stronger manner upon it, or abounds in larger quantity at least in them as such: two potent confirmations of the truth of this Author's principles, in regard of the essential

fential causes of disease, both with respect to the fluids and solids, and the effects of the putrid or rather now pestilential condition upon both.

Farther information is given by the same Gentleman in his Account of this disease, that the chin-cough, measles and small-pox as usual attended it; which latter, according to notice had from all quarters, was of a most destructive kind. To these are adduced some instances of the true quinsey. This however was under the regulation of a pestilential constitution of the air; and this Scarlet Fever and *Sore Throat* is undoubtedly a fever of a very high pestilential nature.

Medical gentlemen as well as the public in general, are not only greatly obliged to this Gentleman for his most accurate account of the appearances in the disease, but also more highly indebted to him for some uncommon and very judicious observations on a subject of the utmost importance regarding the administration of medicine, which will be mentioned when this author comes to take notice of the
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ill effects of the early use of the Bark in fevers. But he will here make the following pertinent remarks. Where chillness, languor, sickness and vomiting, and a white tongue without thirst appear in Fevers, such bear the infallible marks of the late putrid constitution impressed on them.-----But where chillness is attended with alternate heat and flushings, when to sickness and languor is added *dejection of spirits in the beginning of fevers*, and such a fever arises and rages during *the hot months* as the Scarlet Fever and Sore Throat, and gradually declines in the colder, attended with an hot and even *burning heat of the breath*, with a small, quick and *uncommonly feeble pulse*, * and in dangerous cases with

* The quick and weak pulse was undoubtedly owing, in some measure, to the direction given the blood to the external parts, by the action of the nerves upon the internal vessels, in order to throw out a destructive pestilential matter inherent in, intimately mixed with and corrupting it, and the consequent emptying of the larger vessels. But this was by no means the whole cause of it: the powers of the whole nervous system, and the body in general, being greatly hurt and weakened by such pernicious influence of the morbid matter and its effluvia, and also by *dejection of spirits*, an affair relating even to the soul, and the never failing attendant on such high pestilential disorders. The latter is a peculiar symptom in the Plague itself. See Thucydides, Book the 2d. Vol. 1. Smith's Translation.

flesh intensely hot, an intense redness of the eyes, a most rapid delirium, and *death on the third day* in children, and in adults *on the fourth or fifth*; when, in those who live longer, the skin becomes dry and harsh, the lips *chopped and black*, the tongue of a *dark brown* colour, the eyes appear heavy and sunk, and a dull red and almost *livid* appearance is seen in the fauces; when to these dire symptoms is added, in the worst cases, the appearance of *livid spots on the skin*, the *total rejection of liquids*, and a *pulse so feeble and irregular as hardly to be felt*,* with the rest of that black and horrid train of appearances so accurately described in Doctor Withering's Account; when abscesses arise in the close of a disease and a *desquamation so perfect* takes place sometimes *as even to separate the nails*! these things declare not only *Putridity*, but something more, the most high rarefaction of it; namely the transition of the Putrid Constitution, during the hot months, into one even pestilential: the appearance of that highly putrid disease the Ulcerated Sore Throat as its fore-runner and harbinger declares

* See note, page 33.

as much ; and the unequivocal circumstance of the livid spots is so unerring a Criterion, as one would think no one hardly could mistake. This author therefore concludes with his countryman *Morton*, as quoted by Doctor Withering, that this disorder, at least under its worst form, is a kind of plague. * Morton was indeed rather unsettled in his notion of it, but he shall not be so in his.

Thus violently, from this gentleman's account, raged this disease in the town of *Birmingham*, and was fatal to numbers, though it usually appeared under a milder form. In the Place, on the contrary, this Author lives in, though it is seated

* When this author read Doctor Withering's Account of the worst cases, he could not help calling to mind Thucydides's description of the plague of Athens, though this fever is no such dreadful calamity as that, and of some of the symptoms that appeared in it, such as the fiery redness of the eyes, the bloody redness of the tongue and throat, the extreme violent head-achs, vomiting and *dejection of mind*, which constantly attended the first attack ; the hoarseness and cough, the intolerable internal heat which scorched the very vitals of the sick : their inextinguishable thirst, lying quite naked and longing to be plunged in cold water ; the flux of the belly, reddish and livid pustules, loss of the fingers and toes in some, and total loss of memory upon their recovery in others ; which however are by no Means equal to the other most dreadful circumstances contained in this fine, serious, and most affecting description. This plague also had its rise in the very beginning of summer.

in an high, dry, gravelly situation, there appeared not many instances of it with efflorescence under his observation, and those in general mild ones except one: owing undoubtedly to the greater purity and freer flux of its air. From hence it is shewn that such situations are not always favourable to the production of the *disorder*; † but that something else is necessary, namely, that the heat be not only in a peculiarly strong manner reflected, but also *concentrated* by closeness and confinement * at least, if the air be not in other respects more impure than that of this.

The fevers here, therefore, being not only under the influence of an high Pestilential Constitution of the air, as it were,

† Four persons in the country had it, and three of them the efflorescence in a considerable degree, even in the latter end of December, and the beginning of January last, though the place is in a low moist situation, and on a clay bottom.

* Vide Hippocratem lib. 3. de morb. vulg. in statu pestilenti concerning the effects of heat in general, and want of air, and its proper circulation, and the same author, lib. 2. Thucydides, Chandler's Travels in Asia Minor, &c. concerning the effects of peculiar confinement applicable to the scarlet fever and sore throat in some measure, notwithstanding it was most prevalent where the sun's rays were most reflected, as well as to other pestilential disorders.

creeping

creeping on, but also in a great measure under that of a Putrid, were of a mixed nature,† and assumed many forms. Most patients had indeed more or less of the sore throat, but generally in a small degree, and seldom attended with efflorescence. The first malignant fevers appearing in the latter end of spring and beginning of summer, besides a sore throat, were sometimes also attended with a determination of the matter of the disease to the external parts of it, and swellings arose in the glands under the ears, though, by reason of its tenacity, they would seldom impostumate. And this symptom appeared in some of the milder cases through the whole hot season. However at this time dangerous and more malignant fevers, attended in some with eruptions and in others with efflorescence, made their appearance: nay, they in an instance or two under this writer's observation, imitated even the plague itself, in an early swelling and impostume on the external glands, which soon termi-

† See observations coinciding with this formerly made, mentioned in page 8.

nated the case happily. The putrid Dysentery withal, in a few instances, appeared in the autumn, as described by the judicious *Zimmerman*; while dangerous mixed and putrid fevers still went on and continued in the winter, attended in one peculiar obstinate case in the latter with circular purple spots, which case ended fatally.

Though this Treatise was in a great measure wrote before the Author saw Doctor Withering's *Account*, having only heard of it, yet he has used and made remarks upon it for some very peculiar reasons. By this means he has thrown light upon the nature of the Scarlet Fever and Sore Throat and its causes, which are undoubtedly pestilential. And, from the various appearance of it, the quantity and quality of the predisposing matter in its inseparable state, is as fully evident, as he has clearly shewn already and abundantly confirmed, in his *Nature of Inoculation*, is likewise the case in the small-pox.

Medical Gentlemen in general may think that great knowledge in Physic may
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be obtained under the common methods, and that the Art will thus gradually be brought to perfection: but they will find themselves in the end, if they persist, miserably mistaken; and the experience of Ages is certainly against them. Nothing but the adding to the most accurate observations of the appearances in diseases, and the effect of medicine, true Reason itself concerning their causes, and to this the most regular, long continued, and faithful observations of the reigning constitution of the air, the nature of seasons, and their effects on bodies, and the due observation withal, and high contemplation of the methods used by Providence in the government of the world, can ever make men Adepts in this noble science, as this Writer hath already declared.

Towards the end of Doctor Withering's Account of the appearances in the disease, he makes mention of a man who had a locked jaw, and died early upon the fifth day. This dreadful symptom was undoubtedly occasioned by the dire effects of the highly rarefied *effluviæ* of tenacious, acrid, inseparable, corrupt and malignant

lignant matter, their distending and stimulating the nerves, and the inability of nature to discharge them and purify the blood; whereby the whole system was thrown into this dreadful convulsion as the last effort. This is always the case where it does not arise from wounds,* and this morbid matter almost always co-operates where it does; as is clear from the remarkable case related by Doctor Cleophane inserted in the first volume of the Medical Transactions, as well as from the good effects of breaking its tenacity by Mercury, and discharging it by a ptyalism early in the disease, according to the method mentioned by an ingenious

* Who so doubts this may be convinced by reading the *coacas prænotiones* of Hippocrates with Johnston's or Foësius's Notes. It may also be proper to read case the 4th in the first, and case the second in the third book of epidemics, after the description of the pestilential state and its diseases, with Foësius's notes upon them. In that on the latter case occur these remarkable words; *Ex quo satis manifestum fuit crudum plurimum vitiosumque humorem longo temporis intervallo coacervatum, nova morbi accessione auctum, difficilimis casibus ægrum objecisse. Nil autem mirum ex varia crassorum, crudorum, biliosorum, acrium, tenuium et retorridorum succorum permixtione diversis casibus fuisse appetitam ægram, quod inæqualis humorum connexio tantam faceret symptomatum copiam.* Compare this with this writer's notions.

Physician abroad, whose treatise this writer has not, and whose name he has forgot. This he calls a radical cure; that by opiates fighting of symptoms: wherein nature must prove in general more a friend to the patient than the physician to perfect his recovery. Though he doubts not but is well aware of and acknowledges the good intention of collecting these cases, and publishing these medical observations; yet in his systematic writings, founded also upon and correspondent always with observation, he shall take the liberty, it is hoped without offence, to make use of some of them, and pass judgment upon them.

The due consideration of the dropical termination of this disorder, will afford another powerful confirmation of the truth of this Author's principles regarding tenacious acrid matter, and its retention in the body and the relaxed state of the solids, as its predisposing causes. For, where this matter has not been properly carried off by the efforts of the disease, or the assistance of medicine, this is
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its natural termination: || especially in weak habits and old persons; and may be where it has been ill treated. It is very remarkable that, after the fever had passed its usual type, when the skin usually peeled off on the 5th or 6th day, in branny scales, a secondary one not only appeared or went on in bad or lingering cases, but even under this last circumstance, * till it became fatal; unless such morbid matter was attenuated and discharged from the body by blisters and the use of calomel, and the solids restored and confirmed by the bark and steel, correspondent to his notions of its causes.

Thus information is received from Doctor Withering, in his accurate Account, that, in the late peculiar visitation, the Scarlet Fever and Sore Throat, though fre-

|| Hippocrates from observation hath to this effect in book 3. de morb. vulg. in statu pestilenti. Morborum solutiones prorsus nullæ partimq; difficiles, aquæ inter cutem, tabidi multi.

* See what is said on this subject, page 9. Also Hippocrates de morb. vulg. lib. 3. who hath words to this effect, Ac fere omnes tumoribus corripiebantur et in aquam inter cutem evadebant. Horrore concutiebantur et sub mortem delirabant.

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quently dreadful, was not always the whole ceremony ; but that a dropſy often came in at the heels of it, in order, without prevention by good medical aſſiſtance, to bring on the catastrophe, to put an end to and cloſe the diſmal tragedy.

As to the adminiſtration of medicine in this fever, this gentleman's obſervations on the general inefficacy and impropriety of bleeding, prove it to be no true inflammatory fever.† Thoſe on the ill effects of bliſters during the hot weather, though ſomewhat more equivocal, yet, when conſidered with the above circumſtance, prove even its peſtilential nature. The practical remarks on the great uſe of vomits, which diſcharge the tenacious matter in the groſs, are certainly good : and thoſe on the uſe of vegetable alkaline ſalts, which open the ill-formed cruſis of the blood and undue adherence of the tenacious morbid particles in it, diſengage and detach them from it, and ſcour them gently off by the glands in general, are curious. And though his obſervations on

† See what is ſaid on this ſubject, page 8.

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† See what is said on this subject, page 8.

the ill effects of Opium * are not only true of this fever but of all cases where the nerves are oppressed and distended, ever were so and will ever be; yet they are undoubtedly judicious. But those on the apparent bad ones of the Bark in increasing and hastily rendering putrid the sloughs in the throat, page 88, and his

* If there had been a proper degree of knowledge in regard of, or any proper attention paid to the predisposing cause of Cancers, and the tenacious and impure state of the blood in people in years, who are chiefly afflicted with them, this Author cannot see what good reason Gentlemen of the Faculty could have to raise their expectations so high in regard of the use of nightshade or hemlock, with a view to their cure. It is true there is nothing to be said against experience: and, if there are facts to support it, it seems warrantable to try any Thing in such desperate cases, if there is only a bare probability of success; at least where no great harm could ensue from the trial. But if Medical Gentlemen had been well acquainted with some of the first principles regarding the animal œconomy, and the causes of life and motion, or had but coolly considered the matter, they would have been aware that the effects of these strong sedatives must often be pernicious and of the worst consequence. By using them in order, as was supposed, to dissolve tumours in some cases not appearing likely to be attended with peculiar bad effects, if any, and thus lulling the powers of the body which ought to be awake, on their guard, and in action proper to keep particles so disposed to stagnate, in due motion, many have been thrown into palsies with great difficulty curable, if at all. Nothing can warrant their use but the worst cases. And in them it chiefly appears to be only that of a strong opiate. But practitioners in this eccentric age, for want of better knowledge, have been aiming at doing things in an empirical way, which are to be obtained, at least safely,

reasons

reasons there given why Practitioners are deceived in regard of its ill effects in those which are milder, are, respect being had to the days he lives in, and the general infatuation about this matter, uncommon and excellent. The matter of fact is, in dangerous cases, by reason of the untoward, intractable and inseparable nature of the predisposing matter, its quantity and high rarefaction, there was no temporizing, but if the medicine was not duly administered, it was seen in bad and sometimes fatal effects soon; its strong contractile and confining powers driving

by true knowledge and sound judgment only. The same observations are applicable to the use of corrosive sublimate, a medicine, if it may be called one, which few persons can bear at all, and none without the worst effects, though they do not always suddenly appear. The abrading the solids in such a manner, must in fact be bad. And when this detestable practice first came in vogue, as every one must be in fashion, and bold, or rather rash enough to prescribe it, and sometimes without due regard had to the delicate state of the nerves in some peculiar habits, by it a fine and amiable woman, a relation of this Writer, was thrown into a galloping consumption, and he himself narrowly escaped the same fate some years ago, only by the undue use of a little calomel. So necessary is the finest judgment in the exhibition sometimes even of the latter. A gentleman indeed there is, who has peculiarly delicate notions about this matter, but he unfortunately even runs into the opposite extreme, and will not prescribe it where it is necessary.

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it not only upon the throat, but also upon the head, and bringing on delirium, stupor, and a long train of ill symptoms, as happened in the first Case related in *The Account*; and which, without proper assistance, would therefore have probably had a fatal termination.

No conclusion however is to be drawn from these ill effects of the bark in the Scarlet Fever and Sore Throat, or from any specific difference observed in the appearances in the sore throat in this disorder, and those of the Ulcerated sore throat, that the former is any true inflammatory fever; nor that it has not a putrid tendency, and that a very high one. Pestilential disorders, of which it has been already proved this is one, always have: unless the matter of the disease is in the first place thrown out, as usually happened on the third day in this fever; is still further attenuated, and by degrees eliminated, as happened on the fifth or sixth, when the dry hardened matter peeled off with the skin in branny scales; or is by
 abscesses,

abcesses, * as happened in some cases, still more completely expelled, dissolved and discharged. In a few cases of the small pox this season, the blood was so completely contaminated and corrupted in every impure habits, during the first fever, that the whole mass was turned into a putrid gore. Hence, so far from obtaining any maturation of the pustules here, the natural cure of this disorder, not even a tolerably effectual eruption could take place; but the patients died on the very attack of the disease. And yet this has been called an inflammatory disorder. The same thing happens in the plague, when no impostume arises. As to internal inflammations, great ones are seen in the bowels, upon dissection, in that remarkably putrid disorder the late Puerperary Fever: they are undoubtedly present in all Fevers in some degree, and are highly remarkable even in the Plague itself. †

* Both these discharges of it shew the existence of a sily scurvy in the blood almost like to that in the leprosy thus eliminated; which is farther confirmed by the sily state the blood, was found in when taken away in this disorder, according to Doctor Withering's observations: and owing more probably to the taking great quantities, and perhaps sometimes impure kinds of animal food, than to the use of any vegetable productions.

† See Thucydides's account of the appearance of the eyes and throat in those who were afflicted with it.

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This writer must beg leave, in this place, to take notice, that immediate bad and even fatal effects arising from the early and injudicious administration of the Bark are not confined to the Scarlet Fever and Sore Throat, nor even to continual fevers in general, attended even with remissions, as has been the case in general for many Years past. In the remarkable Intermittants of 1758 or 9, arising from the accumulation of great quantities of heterogeneous, unsanguified humours in the blood, during the continued open weather of a very mild winter, joined with more in relaxed and much worse in habits also impure, and confined and put in motion by the power of a clear and very remarkably sharp air in the succeeding spring, in general, though usually in a less degree than still farther back, more common in those days, * the early and

* This writer has not observed or felt the usual quickness of the air in March for two or three seasons past, which is the most wholesome month in the year, and of high consequence in its natural state, as preparative to the Summer. If it should be so in this, and it shews for it, the season must be sickly. It was cold and raw indeed in the spring of the year 1777, when the wind blew so much from the North East, but yet it wanted the active quickness he has endeavoured to describe.

consequently

consequently injudicious use of the Bark was attended with such fatal effects, that a few doses only sometimes totally oppressed the head, brought on a most rapid delirium, and cut off persons in half an hour. The peculiar nature of which intermittents and the deadly consequences of the injudicious use of this medicine, by observing the nature of the different seasons and, upon his principles,† reasoning upon their effects, were likewise foreseen by this writer then young at that time also. And this remarkable account is inserted here not only to expose this early and unwarrantable use of the Bark, but to shew what improvements in Physic may be expected when men stand upon firm principles and proceed upon right grounds with a simple, unprejudiced and attentive turn of the mind.

In the almost general, nay deplorable infatuation of the Practitioners of the Age in regard of this matter, this Writer is happy to acknowledge, and desires he may be at liberty to take notice, that

† Mentioned in page 3 and 4.

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there is one Physician at least, (and he hopes more) who has had sagacity enough to observe, and manly candour to acknowledge, that he has found this medicine, in his own practice, highly detrimental in the Scarlet Fever and Sore Throat. And this Author wishes the Faculty in general would take the hint. For though he doubts not, nay acknowledges there may have been, and perhaps still are cases, though he never met with such in his practice, and that were not better relieved by other remedies,* wherein it is necessary to be given, and in quantity too, to prevent the rapid progress of putridity; yet he does at the same time insist that, where the matter of the disease, whether crude or tenacious, is retained by the constringent powers of the bark, which has no equable temper or moderation in its action, as is frequently, if not always the case, by reason that the crisis is very back-

* It is almost inconceivable what dreadful mischief may be prevented by the judicious and timely application of a single remedy. By the administration of an emetic in the beginning of the Ulcerated Sore Throat, he has put a stop to disorders of that kind as were fatal in three days, and cured them by this single remedy. Doctor Withering in his account has mentioned parallel instances of their use in the rise of the Scarlet Fever and Sore Throat.

ward and remarkably deficient in such cases, notwithstanding apparent cures in these and intermittents where it is given early, the greatest part of the work, the due elimination of this matter, is still to be fought after and performed: for that otherwise the disease will return, or a worse succeed it, as he is abundantly convinced of by the most faithful observations. †

Give the Author of this leave to observe still further, that, where diseased matter and its rarefied and heated effluviæ do predominate in the body incapable of secretion yet wanting to be discharged, confinement by the Bark is frequently not only death, but sometimes worse than death, * to persons so circumstanced, as the force of it must fall somewhere. Happy it is, when, by reason of the morbid matter having an external tendency or direction given it by the power and action of the internal vessels upon the outer through their natural relaxed or thus forced and distended state,

† Vide Hippocratem de signis judicatoriis, lib. 2. de morb. vulg.

* Lunacy.

the impression can be made upon a limb, as in fevers attended with rheumatism and external inflammation, and is not made upon the brain and nerves, nor confined in or thrown internally upon the Viscera, as happens but too frequently in others. Out of regard to those cases wherein he has known some to have been suddenly cut off, and others left to linger out life under complicated disease, he heartily wishes there may, and hopes there will be a time, when Practitioners in Physic will learn not to wantonly trifle with so powerful and dangerous, though noble a medicine.

It may be perhaps convenient and proper to exclude reasoning † from a book of observations, but this Author will take the liberty to introduce it in his. In fact it is now full high time for men to wean themselves from an empirical practice in general, more especially in regard to the Bark, when some Practitioners at least too fond of it, though led astray indeed by others and imposed on by custom and

† But, if reason is to be excluded from Physic, how is its dignity to be supported?

practice,

practicé, begin to open their eyes and awake from their delusions. *Frewin* in his day, did as much to open mens eyes in regard of this matter as man could do by mere sagacity and observation; but his endeavours were not found sufficient then. It is really a matter of too much importance for men to tamper with the lives of their fellow-creatures by an empyrical practice longer, because they ignorantly or lazily suppose no better can be found. Such conduct, it is certain, is not well supported by the more perfect notions of the great Lord Bacon. For the sake of that share of credit Physic has left, it is hoped the patrons of Empyricism, wherever they are, will be found more knowing and tractable, than some of those ignorant pretenders to science, who, after the fairest clearing up of the matter, still continue to bewilder themselves, impose on their fellow-creatures, and inveterately persist, without knowledge, to pester the Public with their writings upon religious subjects.

Before closing these observations on the ill effects of the early use of the bark,

without paying respect to any crisis, notice shall be just taken, that in the peculiar case of the Nyctalopia so candidly related in the medical observations, that medicine was persisted in contrary to the express admonition of nature in rejecting it by vomiting; that by so continuing its use in an oppressed state of the body, a fever in a most extraordinary manner was raised, even in the dormant state of the morbid matter; that, by reason of the tenacious, unattenuable and inseparable nature of it, a delirium and other bad symptoms came on, and it ended fatally. The Nyctalopia itself was owing to the same matter, which by such its nature prevented the due preparation of and requisite subtilty for vision in the animal spirits, being thereby kept in so gross a state that the man could not see through so bad a medium as candlelight, nor unless the animal spirits were enlivened by the absorption of the rays of light in the day-time: being expressly, in some measure, in the same condition with respect to the body, which, in reference here to and concurring with it, some in a most remarkable expression are said to be with regard

regard to the soul, whose light within them being darkness, are declared to be full of darkness inexpressible and in its gross form. So true are all this writer's notions, concurring with and explanatory of all the phænomena respecting both diseases and the effects of medicines, and that in a disorder, the cause of which is perhaps as intricate and extraordinary as can be produced, regarding even the animal spirits and the action of the nerves themselves; and to such an amazing extent may men's knowledge and observation be carried, when they are properly acquainted with them.

The Nyctalopia is a kind of Semi-Gutta serena. And the same cause, by producing more lasting effects in the same manner and without intermission, will produce a true one, when joined with peculiar weakness and decay of the optic nerve. Nyctalopians may be truly said to be at times blind with their eyes open. It is much to be wished it was not applicable to too many in the present day, in a sense of infinitely higher consequence

to them, and of great importance also to the present well-being of others.

These observations on the history of this remarkable disorder and its treatment are introduced here, not to cavil at the use of the bark or any one's practice, but to shew Practitioners, if they will see at all, that even intermission, however complete, is no sure rule for giving this medicine, without due observation of the attenuation and discharge of the tenacious matter, which is at least the half of the cause in such complaints; and to convince them what fatal effects sometimes come on from such use of it, without at least attending to crisis, if knowledge of diseases should be wanting as to their original causes. A fever was here raised by it where there was none before, and that a fatal one. The Case is now before them with its proper comment, and he that runs may read it.

Having ascertained the truly pestilential nature of the Scarlet Fever and Sore Throat, properly so called, this Author will say nothing more concerning it
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or its cure, not many cases of it having fallen under his observation, but proceed to take notice of malignant fevers of a mixed kind and various form, which made their appearance in Colehill and some of the neighbouring villages, in the order they were observed to come on this season and proceed, under a Constitution of the Air not, even in the hottest months, so highly pestilential, and shew the method of their cure.

The first uncommon and malignant fevers appeared here in the latter end of April and in May, attended, besides the usual symptoms, with a sore throat and sometimes swellings under the ears, the matter somewhat rarefied, though still in a very crude and tenacious state, being thrown outward and determined there to the present relief of the constitution, tho' they did seldom impostumate. These cases were of the milder kind, being seldom dangerous where the matter was not unduly repelled; the swellings gradually subsiding in the latter end of the disorder in a great measure, when the matter was attenuated and discharged. This Writer
heard

heard of two cases where this was injudiciously done, the one of which ended fatally, and the other person was seized with a palsy. Let these be a warning to Practitioners, and teach them to leave off that childish method of fighting the symptoms, the unduly resisting the operations of Nature, and trifling with *repellent* applications.

These milder Févers, though indeed malignant in general, yielded to the use of a vomit, some attenuant antimonial powders with camphire, aperient solutions with rhubarb and soluble or cream of tartar, given every other day, a blister on the neck, some small doses of calomel, with purgatives, towards the latter end of the disease, and afterwards a little bark in some light form to strengthen them, with the use of air and exercise, keeping the bowels open with some aperient medicine with Rhubarb for some time. The best gargle was prepared with vinegar and honey, or rather oxymel of squills, this producing some discharge from the glands of the throat; but the use of vitriolic acids was highly improper, at least in the beginning

ginning of the disease, for the reasons already given concerning the use of external repellent Applications. In fact, all vitriolic and bracing Antiseptics, whether used by way of application or internal medicine, by confining and preventing the separation of the tenacious matter of the disease, were in general found remarkably hurtful and detrimental, in all the fevers of this season.

The fevers in the hot months, as has been already observed, assumed the above described appearances, in some of the milder cases; but they generally put on a more malign aspect, and were fatal to many, but chiefly to children: especially where they were not attended with the eruption of pimples, as sometimes happened, nor with some degree of efflorescence, as in the more compleat cases, as well as with the sore throat. One remarkable Case indeed passed under this Author's observation, where the efflorescence attended in a pretty high degree, and ended fatally. But the worst cases in general here were those mixed ones, in which the tenacious inseparable matter
lay

lay lurking and working within, for many of these were dangerous and fatal, and some lingering and obstinate.* They were in fact of so mixed a nature, as blended with the putrid fever, and exhibited so varied an appearance, that it is almost impossible to describe them. On the first attack some were seized with a considerable rigour, the violence and continuance of which was a sure criterion to

* These were like the *ἀκρωτία πολλά. δυσχεῖτα*. taken notice of by Hippocrates two thousand years ago. And, at the very time of writing this, Erysipelases, and tetters eruptions inclined to malignant, are common in the place this Author lives in, which is the first disorder mentioned by him as appearing even before spring, in the pestilential state of the air he has described in the third book of his epidemics, under the regulation of a southern wind, and moist and warm Atmosphere. The Writer of this has already observed that the wind has not been out of a southern point, except a little to the west sometimes, but twice for two months past, and then not more than 24 hours at a time. In fact, the weather is more like autumn than winter and spring according to this climate, there being, through warmth and a southern wind, a peculiar fusion of vapours through the atmosphere, and the air so loaded and united with them, that they cannot be thereby congregated and formed into bodies and discharged, till they greatly predominate and descend in great gluts of rain : at other times coming down only like a kind of dew, or at most a small kind of rain ; unless the vapours are more condensed, as happens when the wind turns at times into a colder point. The perversion of the order of the weather is in fact so great, that the naturally wet point, the south-west, is become the dry one, in respect of rain itself, but not of moisture and its effects, which predominates in the air notwithstanding in a worse and more hurtful form.

judge

judge of the danger of the ensuing fever. For here the matter impure and unfit for motion, both crude and tenacious, was large and abounded. In others where it was differently disposed, the chillness and heat succeeded each other. In some of more relaxed habits, the former returned every night, and there was an evident remission, if not intermission. Some had sickness at the stomach, others not. All had not the Sore Throat: and most not the efflorescence. But a remarkable languor never failed to attend, and a quick and weak pulse, which in bad cases became fluttering. The tongue, from being white and moist in the beginning, as in putrid fevers, gradually grew browner, and in the worst cases black. Yet there was generally no thirst; and the saliva was remarkably viscid. The breath was so hot as to be felt so at a yard or more distance, or even on coming into the chamber in small rooms, and generally offensive; and the heat of the flesh was intense. The skin frequently dry and hasty; but not always. However there was seldom, if ever, any effectual perspiration, sooner in the disease or later. On
which

which account, in the worst cases, the patients grew intolerably restless towards the latter end of it, and so filled with rarefied and heated vapours inseparable by the skin, that they seemed bloated, and as full as if they had not parted with any thing out of the body during the whole course of it:* and yet, which is very remarkable, upon venting wind by the stomach and bowels, on a sudden grew so thin, as almost to be reduced to mere skeletons. With the above attended Delirium, Coma, and a train of other ill symptoms.

There was seldom any more perceptible discharge of the matter of the disease by the kidneys, than by the skin. A Ptyalism indeed sometimes arose to the relief of the patient, and some hawked

* This, if any thing, is a direct, unanswerable, nay absolute proof of the truth of this author's notions regarding tenacious, inseparable predisposing matter in the blood: the effluvia of which were not even separable by the skin in such a rarefied and heated state, nor sometimes in its gross state, by the lungs themselves. Thucydides, in his description of the plague of Athens, takes notice also of this very remarkable circumstance, that, so long as the distemper continued in its height, the body had no visible waste: a direct case in point regarding retained, inseparable matter; and that even in the plague itself.

up phlegm from the throat. But, if any thing proved in general critical, it was the purging, which was apt to come on in the latter end of the disease: which yet, when patients could not be properly supported under it, as was often the case, proved fatal. The purging also sometimes came on early in the disease, to the evident relief of the patient. For there was a peculiar tendency in general of the putrid matter to the bowels; vomits, though simply of Ipecacuanha alone, being apt to take that course, and sometimes weaken and reduce the Patient to his hurt.

In lingering cases the last effort to discharge the tenacious, and otherwise inseparable, matter, was a cough and spitting, which sometimes saved the patient, but often not.

The symptoms and appearances observable in mixed cases of the worst kind as above described, though not comparable to those of the legitimate Scarlet Fever and Sore Throat in the worst cases described by Doctor Withering, were yet dreadful;

dreadful; and to any accurate and sagacious Observer it must appear, that the due administration of medicine in them was a matter of uncommon delicacy and judgment.

Bleeding was indeed totally out of the question. And, as to Bark, it could not be given under the direction of this Author in the beginning of the disorder, because he knew it was totally improper and dangerous to do it. However, as there is no disease, to the treatment of which, the old Adage in Physic could more properly be applied, and, if the proper opportunity was once lost, remedies, though necessary, could seldom if at all be afterwards used with equal safety or advantage, a Vomit was necessary to be given, and that on the very rise of the fever, in order to discharge the putrescent phlegm lodged in and oppressing the stomach, and thus unload the constitution of some of the matter of the disease under its most gross form, as well as to put the whole machine of the body into action; since, without this necessary care, some persons

persons were in a manner lost, before remedies were made use of.

But vomits in general were apt to purge, and that sometimes so as to weaken and hurt the patient; and weak ones would not answer. Under these delicate circumstances, namely, the early tendency of putrid matter to the bowels, and the irritability of the fibres remarkably observable in all the fevers of this season, especially in the hot months, owing to the influence of the Pestilential Constitution, and the mixed nature of these cases, nothing but Ipecacuanha in a sufficient dose could be given, Emetic Tartar being peculiarly apt to run off by the bowels, and produce the same bad effects as strong purgatives. Nay, this was the case in some respects even with Ipecacuanha itself, it being frequently more disposed to purge than vomit. Hence it is evident this medicine could not hastily or frequently be repeated. And in fact in many cases here, during the continuance of the hot weather, it was not proper to do it. Some patients who had sufficient strength, might perhaps have been relieved by its use; especially

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cially those in whom the Ptyalism was deficient.

The exhibition of this medicine generally procured some relief; and after its use, though attenuant sudorifics of any kind seldom if ever had the desired effect, yet as the morbid matter now took a different turn, it was thought proper to second the efforts of Nature by gentle doses of a mild antimonial powder, or small doses of ipecacuanha, with camphire, in order at least to attenuate, disengage, and propel some of the morbid matter outwards to the skin, little apt sometimes to come forwards, to the present relief of the constitution, till by degrees it could be more perfectly discharged, which as yet could not happen. For want of this sometimes, where the morbid matter abounded and was inherent in the blood, a most rapid total putrefaction came on in the very rise of the fever, suddenly fatal as in the small-pox.*

Apertient solutions with rhubarb in small doses, or rhubarb and cream of

* See page 26.

tartar were likewise given; which by unloading the bowels, and lessening the internal heat, generally prevented the putrid purging. And these were, at due distances of time, repeated in small doses, so as to act gently, and keep the body open, as the occasion and case required.

Though it is a point agreed, that strong purgatives are bad in putrid fevers and mixed cases, as well as in the true Scarlet Fever and Sore Throat, yet, from any effects observed, there was no reason to conclude that mild aperients, such as rhubarb, or rhubarb and cream of tartar, or tartar of vitriol in small doses, with or without gentle cordials, as the case required, and taken at proper intervals, were in general improper in the two former. They certainly did not act so mildly and well, even in cases only mixed, as they do in compleatly putrid ones; nor indeed any irritating medicine whatever. But where the other secretions in general do not go on well, and are so remarkably deficient, it is undoubtedly of the highest consequence to keep the bowels open by

the use of proper aperient medicines, both on this account, as well as to regularly discharge the putrid phlegm and corrupt juices perpetually draining that way, and to prevent their lodging in them; more especially where the bowels either have not free, or not good discharges, as was here the case. And this not only out of regard to the present state of the disease in these cases, and to prevent a fatal putrid purging in its close, but with a view likewise to those bad consequences, which, without such prudent care and judicious administration of medicine, where crises are so remarkably deficient as in these disorders, too generally do, and must frequently otherwise inevitably follow. These medicines scour off and discharge gross matter by the bowels, as vomits do by the stomach; and given, in those cases where they can be properly used and borne, in small doses, so as to move the bowels only once or twice, and with due regard had to the patient's strength, and at proper intervals through the whole course of the disease, contribute greatly to its terminating happily.

Having

Having mentioned Camphire this writer will just take notice that, like rhubarb, it is one of those fine productions of nature, to which there is nothing like, and for which there is no succedaneum: its cordial quality being joined with mildness, coolness, and withal a peculiarly fine balsamic property; and all these closely united in one body, and of exquisite subtilty. Hence it is admirably qualified to be useful not only in putrid and mixed fevers, but also in so high a pestilential disorder as the true Scarlet Fever and Sore Throat, and even in the Plague itself: in which last diseases it is the only cordial that will perfectly agree, and will not heat or irritate. But its finest effects are upon the brain and nerves, which it pervades like electric fire, corrects the corrupt animal spirits and supplies fresh ones, heals, restores, invigorates, and puts in action the whole system, and thereby promotes insensible perspiration. And these things are not matters of mere speculation, but were found upon experience to be true in the late fevers attended with so irritable a state of the solids; wherein this tempe-

rate, antiseptic, and most noble nervous cordial was of remarkable use.

As Camphire was the best cordial, so Vinegar in mixed cases inclined to putrid above described, was found the best antiseptic; and that without confining the matter to be discharged: the great fault of most other medicines of that sort, such as the bark and those of the mineral class, which, on account of this quality, and the inseparable nature of the morbid matter, it has been already said, were always found to be remarkably prejudicial in these fevers. By experiments made with its steam upon the inflammatory size of blood, it is well known to be a powerful dissolvent of tenacious matter, as well as a detergent of the glands, and promoter of the secretions. And it is likewise well known, that a certain Physician, in the plague of Marseilles, used a medicine with great success, the basis of the composition of which was vinegar and camphire.

If the bark is given early in bad and dangerous cases, the body becomes immediately oppressed by its intemperate action,
the

the morbid matter and its effluviæ are impelled with violence upon the head, the patients grow delirious, and generally die soon. For nature in this case, where the matter is so tenacious and gross, has no resource left but the immediate absolute attenuation and discharge of it by the finer secretions, which is impossible, because the excretory glands in general, even those which secrete the grossest matter, as those of the bowels, are so constricted and bound up, and that in a lasting manner, that they cannot let it, in its present tenacious state, pass that way. In cases indeed where the humours are more attenuated, or thin and putrid, a diarrhea coming on has saved the lives of numbers, under these critical and desperate circumstances, if the erroneous and horrid practice of giving opiates to stop it did not prevent the salutary effects. A Relation of this Writer's when in London some years ago, under all these disadvantages, and even in the last extremity in a putrid fever, escaped wonderfully, by the application of a blister to the back, and the use of an aperient medicine only. The former of which was omitted under de-

lirium and the greatest weakness, because it seems it promotes putridity, and the Bark given because it is the best Antiseptic: falsely thus setting up inconclusive experiments with regard to practice upon blood out of the body, against experience of effects in it; contrary to true knowledge in medicine, respecting secretion and crisis, deduced even from observation itself.

Another Gentleman, a clergyman, escaped also under the use of the bark given upon the same principles, by the direction of one of the first Physicians in Town, by taking James's powder without his consent, it having been mentioned to him, though it operated roughly in the latter end of his case. This matter would not be so surprizing if it regarded only Practitioners who prescribe by rote. But that a man of fine sense, and the most delicate notions in regard of the exhibition of medicine, should thus so egregiously err in respect of such a medicine as *the Bark*, is, notwithstanding the power of custom and example, wholly inconceivable.

As

As to blisters, it certainly is not at all surprizing they should irritate considerably under a Pestilential Constitution of the air, and even be thereby very prejudicial in so high a pestilential fever as the Scarlet Fever and *Sore Throat*; especially during the hot weather. They did so at all times of the summer and autumn, even in the mixed and more incomplete cases here, and by no means acted so mildly and usefully as in true putrid fevers; wherein in affections of the head and a rising delirium, after other judicious management and at a proper period of the disorder, a blister applied to the back was generally a specific in the case. However if in the progress of the fevers, the head became considerably affected, and Delirium, but more especially if a Coma came on, though blisters might irritate, they were not wholly, at all times and under such circumstances, to be neglected in these. Under good management, and applied at a proper period, and especially towards the end of the disease, they were evidently useful in cases apparently more relieveable, though they could not always succeed

succeed in very bad ones. Where they do not heat and irritate too much, they undoubtedly do excellent service, when the brain and nerves are oppressed and stimulated by tenacious, inseparable, acrid, and corrupt effluviæ and the heated morbid matter in the blood from which they arise; both because they discharge such matter in the gross, and moreover, and which is of much higher consequence, put the languid powers of the body in motion, to attenuate and discharge by perspiration the noxious effluviæ of it, thus hurtful to them. They are likewise of service sometimes as local remedies. But this, in respect of their general effects, is a matter of very small consequence indeed. It is then a sad misfortune to want the use of such noble remedies as blisters in fevers, not only attended with great languor, but a dreadful dejection of spirits, impressed on them by the hand of the Almighty himself, * and in which the whole tribe in

* There was not only a dejection of spirits on the attack of the disease, but in the progress of it in some, in bad cases, from Doctor Withering's Account, a *clamorous*, and, as this author apprehends, restless and impatient state under it, a circumstance, with the former, invariably connected with those great evils which happen out of the ordinary course of nature,
general

general of other cordials, except Camphire, are not only unavailing but hurtful, as is the case in the true Scarlet Fever and Sore Throat: in which moreover a dire train of nervous symptoms arises, in bad cases, in a manner, by reason of the peculiar irritability of that system, and terrible general internal inflammation unrelievable by bleeding, without a remedy to relieve them, except vomits where they can be borne: for such a situation is truly dreadful: and by it is clearly shewn the terrible nature of such high pestilential fevers.

If a ptyalism came on in these mixed cases, as it does in true putrid ones, it was a good sign, and was promoted, as well as the discharge of phlegm from the throat, by a gargle prepared with oxymel of squills, which in general is the best. Where this symptom does not happen, blisters cannot be applied, or, by reason of the inseparable nature of the matter, are not effectual to relieve the

especially when afflicting persons of immoral lives; and will be most remarkably so before the final dissolution, according to that of St. John. Rev. xvi. 9, 11.

head,

head, vomits seem to be the only medicine that will supply their place, or that can be depended on, if the patient's strength or state of bowels will admit of their use. *

As these disorders were inclined to a putrid nature, sometimes, instead of the above symptom, a putrid purging came on in the latter end of the disease, in some cases so violent, that, though cordials always heat them and disagree, it became necessary to support them with port wine and vinegar frequently repeated in very small quantities, and even by teaspoonfuls, with or without water as the case required, and the intermediate use at times of rice gruel: whereby, with the use of very small doses of ipecacuanha and rhubarb, with camphire and pulvis contrayervæ compositæ, or confectio cardiaca, some were supported, relieved and carried through under this dreadful extremity.

* The public is not only indebted to Doctor Withering for observations concerning the use of repeated vomits, but to the ingenious Doctor Pye, in the Medical Observations, who seems to be one of the first who gave the hint, or at least insisted on their use.

Some

Some were reduced so low by the violence of the above-mentioned discharge, that they could only use light preparations of the bark, taken in an alterative manner upon their recovery, to gradually restore their strength, keeping the bowels open with rhubarb; while a few, under different circumstances, used a small dose of calomel, purged off by a rhubarb medicine, two or three times, as preparatory to it.

Water, as one of the greatest diluters and resolvers in nature, and promoters of the discharge of morbid matter, as well as Air, that most powerful of all antiseptics, and the free use of which is of the highest consequence, were allowed, under proper regulation, and insisted on during the whole course of the disease. But in these mixed cases, it was not thought proper to use the latter in so free a manner as by walking about the streets, according to the present indiscriminate in all cases, and therefore sometimes improper and injudicious use of it, in treating the small-pox, nor the former by way of drenching, in order to drown the fever, as was the practice with some a few years ago.

ago. Thus, peculiarly in this latter method, setting Empyricism in its worst form, as is the too general case likewise with regard to the modern use of the bark, against its parent true observation, and undermining the very ground on which Physic stood for many ages even in its most simple form, namely, the due observance of diseases and their natural discharge, as well as the effects of medicines, and paying no regard to the former, the whole doctrine of Crises has been struck at, and, with the most gross ignorance and shameless assurance, in this Age in a manner set aside, though founded on the observations of Hippocrates the great Father of Physic, on which true knowledge in it for more than two thousand years has, and always must in a great measure rest.

It has been already observed, that in these fevers, sometimes swellings arose under the ears, but that, by reason of the tenacity of the morbid matter, they would seldom impostumate. For, where this was the case, or an impostume was
formed

formed in any other part of the body, it solved the disorder.

It certainly is uncusomary, and will be thought odd to quote Scripture in a Book of Physic, but this Author, at least in treating of it in a sublime and proper manner, does not know so well how to separate it from Divinity as others may, in their method of writing, pretend to do, and has moreover, in this place, some peculiar reasons relative to his subject for so doing. It is recorded then in the Book of Kings, that Hezekiah being sick unto death, a Prophet was sent to him, to give him notice of his approaching dissolution, but that, upon his prayer, another message was sent, by divine direction, to lay a plaister of figs upon the boil and he should recover. From which peculiar history he shall draw the following most remarkable inferences. From it, it is clear, that the same tenacious, inseparable, indissoluble matter he has described, whether simply such, corrupted, or tainted with miasmata, was the cause of disease formerly as well as now, and that the
resolution

resolution and discharge of it were the cure: * which wanted in this case even a miracle to effect, and thus save the person from death, of which the plaister of figs was only the external sign. What farther or greater proof then need men now have concerning long-retained, tenacious, inseparable, indissoluble heterogeneous matter being a cause of disease unto death, if it be not discharged thus, as in the last instance and resort, by resolution from the body, or its own dissolution, as it may be truly called, with that of the parts whereon it falls, seeing he who is knowledge and THE TRUTH itself, and who cannot err, hath condescended in this remarkable manner to inform them of it? This Author therefore cannot help wishing it was more the fashion with the faculty, in the study of physic, to read and study the sacred writings. They might at least give them a relish for THE TRUTH, if mens eyes were otherwise blinded, and could not see any Physic in them.

* Vide Hippocratem de morb. vulg. lib. 3. de natura abscessuum et effectu ejusdem morbis in statu pestilenti etiam coac. Prænot. 114. 138. 145 & 150.

Let this severe but necessary remark be excused, with some others, because it is not aimed at the whole Faculty, cannot nor is intended to hurt any good man, but is introduced to answer the best intentions, namely, to stir up and encourage the minds of men to the study of **THE TRUTH**, and to confound Error.

For this Author's humble hope and rational expectation is, that not in ages to come, and a remote period of time, which, at the rate Physic has gone on since the time of *Hippocrates*, may never arrive before the final consummation of all things, but **NOW**---in this remarkable æra---even in this present day---under divine Providence is the time to confound it.

If no imposthume arises, if the efforts of nature in general have been ineffectual, or the oppressive and corrupt matter has not been with great attention and judgment regularly, gradually and duly carried off, during the whole course of the disease, or has been improperly confined, the patients generally sink under it. But, where they weather out,
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and, by reason of peculiar strength, bear up under a long and dangerous disorder, the last effort that is generally made is by a cough and spitting; whereby it is evacuated unattenuated, under its visibly tenacious, and original gross form. Which circumstance alone is a direct, and nearly an absolute proof of the truth of this Writer's notions, and abundantly sufficient to determine this great point, that heterogeneous, unsanguified humours retained in the body, under the action of its vessels, till they are become tenacious and unfit for secretion,* are accumulated, become acrid, stagnate, corrupt,* and by the effects of peculiar temperature of the air,† seasons, miasmata, &c. are put in

* Vide Hippocratem de morb. vulg. in statu pestilenti et Foessii notam in verba ἀνεπίαι πολλά.

† This author, during the last thirty years, has observed, in this part of the world, five different Constitutions or Temperaments of the Air, most remarkable for their gradation, which he has taken notice of in the preceding part of this treatise; and which, from their effects upon the morbid matter in the blood arising from intemperance, the nature of diseases and their efforts, he calls the true Inflammatory, which reigned also many years before—the Inflammatory-Putrid—the true Putrid which continued between twenty and thirty years—the Putrid-Pestilential—and the true Pestilential.

The prodigious increase of this ill Temperament has been the cause of the peculiar and shocking fatality of late among
motion

motion to be carried off, and yet, in some desperate cases, are inseparable, even from

women in labour, which this author, according to his peculiar method of observation, prognosticated and declared some years ago. If it be not the will of the Almighty to deliver as usual under this exigency, and if he has sent evils among mankind for its chastisement, what human means can always preserve? The only ones which will in general answer are absolute rest of body after delivery, and an horizontal posture of body, but not in bed—the application and continuance of cloths dipt in cold water, a cool room and the free use of the external air, by opening the doors and windows, and even fanning in hot weather, when the air does not circulate, so as by degrees to bring on a sense of coldness, and even some degree sometimes of shivering—the giving 6, 8, or 10 drops of Thebaic Tincture, according to the strength of the patient, when there are pains after delivery, and the administration of a little small port wine and water at times where it is necessary, and sometimes, a few drops of elixir of vitriol in two or three spoonfuls of an infusion of the bark.—By strict attention paid always, and in all cases, for two hours at least after delivery, the avoiding all rough means of extracting the Placenta where it can be consistently done, as is almost always the case, it separating usually 49 times out of 50 of itself, and generally in less than half an hour after delivery, when it may be gently extracted, and frequently in a few minutes, with the proper use of the means above-mentioned, this Author can safely say that, under the blessing of Providence, of persons under his management from the first, he does not know that he ever lost even a single woman under this dreadful extremity of flooding, in a pretty extensive practice of thirty years.

If this symptom comes on during pregnancy, as it is never without heat in the blood and fever under the regulation of the reigning constitution, be it putrid or pestilential, it is of the highest consequence to give relief to nature by the bowels, with a gentle aperient solution made of rhubarb and soluble or cream of tartar, &c. or an electuary with elect.

the mass of blood, and, when determined outwards, irresolvable and not to be discharged, are the grand predisposing cause in these and all other fevers and diseases: and to eliminate them, or the doing it or not, when joined with what arises, in regard of remission and intermission, from a general relaxed temper of the solids, from peculiar weakness of the nervous system in fevers of that tribe, from weakness of any particular part in local congestions, obstructions, and inflammations, and from still greater defect in all, in Chronical Disorders, the occasion of the various efforts, symptoms, and appearances observed in them.

As to the autumnal appearance in the fevers here, they in general, with some exceptions, gradually returned nearer their former usual putrid type; so that,

lenitiv. or e Cassia, cream of tartar, a little rhubarb, &c. using such other febrifuge medicines also as the case requires. This author in the summer of 1777, in a remarkable close day, without a breath of air stirring, met with a case of this sort in a Gentlewoman only six months gone, which had all the appearances of proving suddenly fatal, notwithstanding very powerful methods were taken to restrain the discharge, till some cloths, by his direction, dipped in cold vinegar and water, were applied to the loins. So remarkably different and more dangerous are cases of this sort now, under the present Constitution of the Air, than they were formerly.

in one very bad case, not only a small portion of emetic tartar was given with the Ipecacuanha, according to this author's usual method in vomits, but also a small dose of calomel, at a proper distance from its operation, from a foresight of its danger, though the patient was a woman of a pretty weak habit : by which means, and the other management before recommended, she safely recovered, but not without great affection of the head, and other alarming symptoms.

Another female Patient in the same kind of fever, attended with great difficulty of breathing and even asthmatic symptoms, was relieved, under great exigency, by a very strong vomit, with a pretty good portion of emetic tartar in it, and a safe turn thereby given to her case, though she is between seventy and eighty years of age.

Notwithstanding however this appearance of the more true putrid Fever in some, a very bad case of the mixed kind arose even in the month of December,*

* It has been already observed, that in the Country, even in a moist situation, the true scarlet fever and sore throat appeared, even in this month, in several instances.

in which the Patient had not only a sore throat in the beginning, but circular purple spots also appeared towards the close of it, and it ended fatally. The patient, a young man, had indeed been extremely imprudent in going out and heating himself by running after the attack, and thus confirmed his disorder. Calomel was given two or three times on the decline of it, with some but not sufficient good effect. How far repeated vomits and the use of vegetable alkaline salt might have succeeded in such an obstinate case, where the matter of the disease would not separate, and under such great difficulties, is uncertain. It appears however undoubtedly proper from reason, as well as highly warrantable from Doctor Withering's observations and frequent experience of their good effects, to use them in these obstinate cases; particularly when bad symptoms go on, and the morbid matter will not separate, if the strength of the patient and the state of the stomach and bowels will permit.

The Author hopes he has long before this sufficiently evinced the truth of his principles

principles and Observations, by that peculiar unity, concurrence, and uniformity remarkably observable through the whole of this Treatise; and thus given satisfaction to, and full evidence in the eyes of all sensible men. And should any less able to distinguish still continue to doubt, such proofs will be produced regarding action in the body, its causes, obstructions, occasional increase and decline, in his systematic writings, as will amaze and confound all opposers, if they cannot instruct them.

Men indeed there may be, of low and groveling ideas, and others whose minds are so warped and turned aside by wrong notions early imbibed, that, though their natural abilities are good, they may be, to all intents and purposes, as void of **THE TRUTH** in regard of their minds, as mens bodies are of the use of natural light who are born blind, and from prejudice cannot receive knowledge. And their case is still worse who set themselves against it from bad principle. But, received or not, these writings upon **THE TRUTH** in Physic, like the

treatise on Inoculation, with those high and cogent arguments, in regard of that in Divinity, drawn up in the Agreement of Reason with sacred Revelation, The Reply, Harmony of THE TRUTH, and final Answer, neither have, can be, nor consequently shall be answered and confuted.

There is a decision for the pretended Critics of the present age to meditate upon, and let them prove the contrary if they can. They have wanted humbling, or rather, what is easier to be done, bringing down to their proper standard, for a considerable time; and now that time is come. This Author would advise them, therefore, to let his works pass, because he knows they have not ability to criticise upon them, be their disposition of mind honest, useful, amiable, praiseworthy, the contrary, or what it may.*

* It is certain, he has received as absurd and unnatural treatment from these people, and some others, as any in his circumstances, at this time of day well could, so qualified and disposed to serve them and mankind at large. And his works will be a standing monument to stare them in the face, and convince the sensible in this age and those succeeding, of their want of knowledge in sublime science and fine judgment at

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He will conclude these his present labours for the good of his Fellow-Creatures, to whom he gives them for a continual possession while time shall last, with attributing Glory, as in the conclusion of The Harmony of THE TRUTH, (applicable in a physical sense as well as a divine) to that Being, in whom are hid the treasures of Wisdom and Knowledge, who alone distributeth these his choicest gifts among men, is the sole Author of their present as well as future health and safety, and alone hath power to bring about that desired work, *ut sit mens sana in corpore sano.*—Immo

Soli Deo Gloria!

Ipso enim in Vero

Salus.

least, and impertinent pretensions to critical ability, if not of a false and corrupt bias, the base and malignant passion of envy, and want of candour.

This author has told them these things in this plain, honest and open manner, in order that the due consideration of them may be a rule of conduct in their future judgments, teach them a due share of modesty becoming the abilities they possess, and not so frequently arrogantly to pretend to pass a decisive judgment on works produced by genius, as well as judgment, greater than their own.

Additional

Additional Observations and Notes.

IN order to form a good judgment of the effects of Air, with the consideration of difference of climate, it is necessary not only minutely to observe each particular constitution, but the manner also in which preceding and succeeding ones mutually affect each other, have effect upon the predisposing causes of disease in the blood, and upon particular places and situations. By so doing, this Author has not only proved that a continuance of pure and dry air is productive of true inflammatory disorders, and in a long course of observation shewn the gradual rise and increase of putrid ones, but, by pointing out the effects of the remarkably cold Season of 1777, as preparatory to the very hot and close air of the succeeding year, has fully declared the manner in which, and the reasons why the Scarlet Fever and Sore Throat made its appearance, and had peculiar influence upon particular places and situations. For in order thereto it seems necessary, that, though the season be for
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the most part remarkably free from rain, there should notwithstanding be a great predominance of heated vapours in the air: which, when less rarefied and when condensed on the decline of the hot season, produce such great gluts and long continued discharges of it, as was the case for near three months running in the latter end of last year.

It has been moreover observed, not only by this Author but by Hippocrates, notice whereof has been taken in the preceding treatise, that Pestilential Constitutions have been governed by a southern wind, and that there has been withal a great defect in the circulation of air in general, at least through the greatest part of the year. And the chief difference in a constitution disposed to produce the Scarlet Fever and Sore Throat, and that partial or general pestilential constitution described by Hippocrates, in the beginning of the second and third books of his Epidemics, seems to lye in the difference of climate, the lesser or greater quantity of rain and continuance of wet weather in the hot season, the remarkably still and
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close air abounding with moist vapours, and the peculiar situation of the place under such circumstances occasioning that local one in *Cranon** during the heat of summer, in opposition to the effects of heat, in an air abounding with vapours in a more rarefied state, locally producing, in the heart of a kingdom and inmost recess of an Island and one of perhaps the hottest towns in it, the Scarlet Fever and Sore Throat in a colder climate.

* Hippocrates in the beginning of his second book of Epidemics, which is part of a continued course of observations, describing the gradual increase of a more common constitution, and of disorders more easily separable, to that of a partial, local, and afterwards general pestilential one, seems to point out two different constitutions of the air that season, in that partial, local, pestilential constitution he has there described: the first of a moister nature, producing Carbunculi, and the succeeding dry as well as hot, giving rise to burning fevers of difficult crisis and in general without sweats; and therefore dangerous and lingering, like those observed by this Author last year. Somewhat like to this is the account given by Doctor Chandler, at the end of his Travels in Asia Minor, who relates that, after the cessation of the plague, later in the Year a mortal and contagious fever raged in Smyrna. This he says was attributed to the diet of the inhabitants, which consists, in the summer season, almost wholly of fruits: undoubtedly, supposing temperance in the use of them, with little shew of reason; these being the only diet at all capable of preserving life under such difficult and dangerous circumstances, as annually arise in such a situation and so hot a climate.

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This Author's observations concerning the regulation of a southern wind, were carried on almost to the vernal *Æquinox* of 1779. Soon after the beginning of March the wind indeed turned into the East, where it remained two or three days, and then got back into the South-east, and continued there eight or nine days more; and since has been in the North-west, North, and North-east. But, notwithstanding some change of air for the colder, while in these points, there have been hitherto no high sharp March winds as usual in that season. The Pestilential Constitution has indeed seemed to relax since the beginning of January, this Author having seen nor heard of any instance of the Sore Throat with efflorescence since that time; which is not to be wondered at, that and spring being undoubtedly the most wholesome season in the whole year.†

† Hippocrates in his description of the general pestilential constitution in the beginning of the third book of epidemics, hath words to this effect; *ver rursus austrinum, a flatibus quietum, &c. existente igitur anno austrino, humido et leni, hyeme quidem salubriter agebant, præter tabidos, &c.* a season in some respects like to this, at least, having nearly such effects, during the winter.

A bad fever however with the eruption of pimples, which had a dropfical termination, and afterwards, from the relics of the diseased matter, a tendency to produce a *Fistula lachrymalis*, appeared in February, and Fevers with sore throats. So that the pestilential constitution goes on, and is likely to do and increase in the hot months again. But to what height it will proceed, and when it will recede, are great points *in dubio quæ sunt*, and remain yet to be determined by observation.

A pain in the stomach and sickness, and sometimes a strong tendency to vomit, attended in some with pain in the head and a slow fever, has affected many persons of late, and hung lingering on them for some time. Cronical disorders original, as palsies, apoplexies, and especially disorders on the lungs, consumptions and dropfies, as well as those succeeding malignant and pestilential fevers, have been also and are pretty common, as is usual in Pestilential Constitutions. Hippocrates has taken peculiar notice of their appearance in such a state of the air, and in a continued course of observation shewn,

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in regard of that, the causes and mode of the rise of pestilential disorders themselves.

If, therefore, Gentlemen of the Faculty be indeed disposed to attain fine judgment in medicine, a competent knowledge of the present constitution and its effects, and ability to discover the nature and consequences of all succeeding ones, with the study of his writings and the application of them by observation to the Phænomena in Physic during their whole life, this Author would advise them not only to read but to study the three first books of Hippocrates' Epidemics, which will give them a good general notion of the effects of air, climate, season and situation and the nature of crises, but will by no means correspond and agree, notwithstanding present apparent cures,* and and much less he is sure his own principles and observations on hereditary and other disorders, with Inoculation† and the

* See the preface to this author's treatise on inoculation and the treatise itself.

† So true are those remarkable words, "he that would save his life shall lose it," even in a sense relating to the body as well as the soul. For temperance, proper preparation before,
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modern use of *The Bark*. For, if the ill effects produced thereby were not in some measure prevented by other errors, not two things more likely, except intemperance and idleness, perhaps exist, which will produce so much fuel to light up the fire even of the Plague itself, and make it rage in a destructive manner, as these two, if a constitution of the air capable of giving rise to it should come on.

and good management in the natural small-pox, are better than all the inoculation in the world, as this author has had abundant occasion of being convinced of, from repeated most exact and faithful observations. Vide Hippocratem de signis judicatoriis, lib. 2. de morb. vulg. ubi verba memorabilia hæc occurrunt. Eorum quæ decernere nata sunt, si quæ judicatoria non sunt, difficilem solutionem, si quæ vero contraria significant, malum indicant. Non ideo tantum quod recurrunt, veruntamen quod priscam naturam exuunt et ad contraria vergunt, non secus ac ea mala sunt quæ in contraria transeunt. Correspondent with which observations, see this author's notions on the ill effects attending the improper use of the bark, mentioned in page 51.

F I N I S.



